

4.5 PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: Estuary Action Challenge Environmental Education Project
 Applicant Name: Earth Island Institute/Estuary Action Challenge
 Mailing Address: 5534 Arlington Blvd., Richmond, CA 94805
 Telephone: (510) 275-5735
 Fax: (510) 275-5735
 Email: enbill1@aol.com

Amount of funding requested: \$ 50,000 for 1 years

Indicate the Topic for which you are applying (check only one box).

- | | |
|--|---|
| <input type="checkbox"/> Fish Passage/Fish Screens | <input type="checkbox"/> Introduced Species |
| <input type="checkbox"/> Habitat Restoration | <input type="checkbox"/> Fish Management/Hatchery |
| <input type="checkbox"/> Local Watershed Stewardship | <input checked="" type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Water Quality | |

Does the proposal address a specified Focused Action? ☒ yes ☐ no

What county or counties is the project located in? Alameda and Contra Costa, CA

Indicate the geographic area of your proposal (check only one box):

- | | |
|---|---|
| <input type="checkbox"/> Sacramento River Mainstem | <input type="checkbox"/> East Side Trib: _____ |
| <input type="checkbox"/> Sacramento Trib: _____ | <input type="checkbox"/> Suisun Marsh and Bay |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> North Bay/South Bay: _____ |
| <input type="checkbox"/> San Joaquin Trib: _____ | <input type="checkbox"/> Landscape (entire Bay-Delta watershed) |
| <input type="checkbox"/> Delta: _____ | <input checked="" type="checkbox"/> Other: <u>Bay-Delta</u> |

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon | <input type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> All chinook species |
| <input checked="" type="checkbox"/> Migratory birds | <input type="checkbox"/> All anadromous salmonids |
| <input checked="" type="checkbox"/> Other: <u>Native plants, tree frogs</u> | |

Specify the ERP strategic objective and target (s) that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II:

ERP Volume 1 Restore riparian habitat, page 151
Reduce concentration and loading of contaminants in the aquatic
environment and bioaccumulation by aquatic species, page 506

Indicate the type of applicant (check only one box):

- | | |
|--|--|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input checked="" type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district | <input type="checkbox"/> Private party |
| <input type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

Indicate the type of project (check only one box):

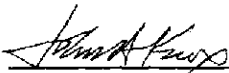
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Planning | <input type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring | <input checked="" type="checkbox"/> Education |
| <input type="checkbox"/> Research | |

By signing below, the applicant declares the following:

- 1.) The truthfulness of all representations in their proposal;
- 2.) The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- 3.) The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

John A. Knox, Executive Director

Printed name of applicant



Signature of applicant

ESTUARY ACTION CHALLENGE

A Project of
Earth Island Institute

6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

ESTUARY ACTION CHALLENGE PROJECT PROPOSAL

Contact Information

Mandi Billinge
Director
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crubill@aol.com
www.earthisland.org/eac

Participants

75 elementary school teachers and 2,000 elementary school students from Richmond, San Pablo, Oakland and Berkeley in the East San Francisco Bay Area.

Collaborators

West Contra Costa County School District, Berkeley Unified School District, Oakland Unified School District, East Bay Municipal Utility District (Restoration/Outreach Program), Lawrence Hall Of Science (Bay Area Family Health Program)
East Bay Regional Park District (Local Park Supervisors)
Alameda County Clean Water Program, Contra Costa County Clean Water Program.

Type Of Organization

Earth Island Institute, the parent organization of Estuary Action Challenge, is a nonprofit, tax exempt 501(c)(3) organization.

Tax Identification Number

942889684

Estuary Action Challenge educates and empowers San Francisco Bay Area schools to improve community environmental health. We are committed to education through action and to equal access to environmental science education for girls and boys from all cultural backgrounds.

EXECUTIVE SUMMARY

Project Description

Estuary Action Challenge (EAC) is an environmental education project, founded in 1992, focusing on the San Francisco Bay Estuary. EAC works with elementary school teachers and students to explore, clean-up and restore creek and bay habitats, reduce urban runoff pollution and address issues of water quality and safe bay food consumption.

EAC programs address the following environmental needs:

- Many of our East Bay Area urban creeks are trashed, smothered with weeds and lack indigenous plant and animal species.
- Toxins from factories, refineries, pesticide runoff and dumping in storm drains are polluting the bay-delta estuary ecosystem.
- Many people fish from the San Francisco Bay. The food caught is contaminated with pollutants that cause cancer and brain damage.

Each year EAC students:

- plant trees and wildflowers along urban creeks,
- organize community creek and bay habitat clean-ups,
- raise tree frogs in classrooms to release back into creek homes,
- design and distribute creative outreach materials to inform school communities about reducing urban runoff pollution,
- express concerns about estuary pollution issues using letter writing campaigns, interviews with politicians and play performances,
- interview people fishing on bay piers about safe bay food consumption and distribute informational flyers in seven different languages,
- demonstrate safe bay fish cooking to families at school-community events and teach safety precautions that reduce health risks.

Location

EAC works with over 75% students of color from low-income, urban elementary schools in Richmond and San Pablo in Contra Costa County and in Oakland and Berkeley in Alameda County. Creek habitats include Wildcat Creek in Richmond and San Pablo, Strawberry Creek and Harwood Creek in Berkeley and Sausal Creek in Oakland. Bay habitats include Arrowhead Marsh in Oakland and Shorebird Park/Crab Cove in Berkeley, at Berkeley Marina.

Biological/Ecological Objectives

- Increase the number of teachers using local bay and creek habitats as educational resources to empower students to help solve bay-delta estuary environmental problems.
- Adopt, clean-up and restore urban creek habitats.
- Increase public awareness of methods to reduce urban runoff pollution to the estuary.
- Increase the number of people aware of bay pollution issues and using safe bay food consumption practices to reduce intake of toxins and improve community health.

Cost

EAC is requesting \$50,000 from CALFED Bay-Delta to expand our programs by sixty per cent. Additionally, \$9,000 will be provided as cost sharing, in-kind contributions.

Adverse And Third Party Impacts

Student's parents and other family members will attend student presentations, help with restoration projects and go on EAC field trips. No adverse impacts result from EAC programs.

Applicant Qualifications

Estuary Action Challenge is the environmental education project of Earth Island Institute, focusing on the San Francisco Bay Estuary. Earth Island is a nonprofit organization supporting a network of environmental projects. EAC was created in 1992 and in the past seven years 250 teachers and 7,500 students have participated in our programs. EAC currently partners with 45 teachers and 1,400 students each school year. With CALFED Bay-Delta funding, we will expand to work with 75 teachers and 2,000 students. EAC curricula, restoration, pollution reduction and community outreach programs have been developed with high input from teacher and student participants and collaborators.

"Our Estuary Action Challenge program was outstanding. My students learned so much about their local environment and were given many opportunities to act as leaders in their communities. I plan to use the entire curriculum next year with my new students." Sonja Ebel, Fourth Grade Teacher, Hawthorne School, Oakland.

Monitoring And Data Evaluation

Teachers and students are surveyed and the information collected used to improve programs. The results of annual interviews show that 80% of EAC teachers continue teaching programs each year after their training. Additionally, each student participant creates a portfolio of work, used to assess understanding of concepts and skills learned. EAC staff evaluate the successful completion of student environmental stewardship projects by assessing the impact of restoration and community outreach activities.

Local Support/Coordination With Other Programs

EAC collaborates with several local agencies to implement restoration, pollution reduction and community outreach activities. Our partners are: the East Bay Municipal Utility District, East Bay Regional Park District and city and county Clean Water Programs. The Lawrence Hall Of Science Family Health Program works with EAC to increase school-wide family involvement in our programs. EAC will work with the Center For Ecoliteracy to bring together environmental education leaders from around the bay, to share effective strategies for addressing watershed issues.

Over 75% of EAC student participants are children of color from low-income, urban schools in West Contra Costa County, Berkeley Unified and Oakland Unified School Districts. EAC has an excellent reputation for delivering high quality, effective programs. There is a great deal of support in local schools for EAC programs and we have a waiting list of teachers.

Compatibility With CALFED Objectives

The EAC project is compatible with the CALFED Strategic Plan objectives in the areas of environmental education, habitat restoration and water quality. It addresses CALFED objectives to restore, protect and manage riparian habitat types (page 151, ERP Volume 1) and to reduce concentrations and loadings of contaminants to levels that do not cause adverse effects on all organisms and ecosystems in the aquatic environment, including effects on human health (page 506, ERP Volume 1).

PROJECT DESCRIPTION

Proposed Scope Of Work

Estuary Action Challenge (EAC) is an environmental education project, founded in 1992, focusing on the San Francisco Bay Estuary. EAC works with elementary school teachers and students to explore, clean-up and restore creek and bay habitats, reduce urban runoff pollution and address issues of water quality and safe bay food consumption.

EAC currently partners with 45 teachers and 1,400 students each school year. With CALFED Bay-Delta funding, we will expand our programs by 60% to work with 75 teachers and 2,000 students.

Estuary Action Challenge is committed to education through action. We work directly with teachers and students in the classroom and on site at creek and bay habitats on restoration, pollution reduction and community outreach programs. The EAC model is effective because teachers have the unique opportunity to learn alongside their students. An EAC Leader works with teachers and students throughout the school year, modeling activities and developing projects. Teachers also have planning meetings with the EAC Leader. Once trained in EAC, teachers continue programs year after year, using the activities they have learned, our curriculum guides, educational resources and equipment.

EAC recruits teams of teachers from each school who commit to integrating a program into their school curriculum. The EAC Urban Creek Restoration Program targets schools within walking distance of Wildcat Creek in Richmond and San Pablo, Harwood Creek in Berkeley and Sausal Creek in Oakland. Each school focuses on studying and restoring the section of the creek nearest to the school. The Pollution Reduction/Safe Bay Food Consumption Program targets schools near the San Francisco Bay, where over 90% of student's families fish from the Bay and shop at local fish markets. Other programs are offered throughout the West Contra Costa County, Berkeley Unified and Oakland Unified School Districts.

Tasks are described below in the outline for each program. Please see Estuary Action Challenge Total Project Schedule for time line and deliverables.

Urban Creek Restoration Program

EAC partners with third grade teachers and students to adopt local urban creeks within walking distance of targeted schools. In 8 two-hour EAC lessons and four planning meetings, teachers learn to teach hands-on ecology lessons focusing on the local creek. Teachers and students work with EAC staff to plan and implement creek clean-up, pollution reduction and restoration projects for their local creeks, including:

- planting trees and wildflowers along creeks,
- organizing community creek clean-up projects,
- raising tree frogs in classrooms to release back into creek homes,
- designing and distributing creative outreach materials to inform peer classes and student's communities about reducing urban runoff pollution.

All these projects are coordinated with local agencies managing urban creek habitats. These include: East Bay Regional Park District Supervisors, East Bay Municipal Utility District Ranger-Naturalists, City Clean Water Program Coordinators. EAC has ongoing relationships with these groups. Collaborating with these organizations ensures project success.

Pollution Reduction/Safe Bay Food Consumption Program

EAC partners with fourth grade teachers and students to study bay-delta issues that particularly affect communities of color in the San Francisco Bay Area. In seven two-hour EAC lessons and four planning meetings, teachers and students learn about the unique physical, biological and geographical features of the estuary. They study problems of urban runoff pollution, industrial pollution, pesticide runoff and how toxins accumulate in bay estuary food chains. In action projects, students:

- organize neighborhood storm drain clean-up projects,
- teach peer classes about reducing urban runoff pollution problems,
- express concerns about industrial pollution issues using letter writing campaigns, interviews with politicians and play performances,
- interview people fishing on bay piers about safe bay food consumption and distribute informational flyers in seven different languages,
- demonstrate safe bay fish cooking to families at school-community events and teach the safety precautions that reduce health risks.

EAC collaborates with the Lawrence Hall Of Science Family Health Program to help schools outreach to families and involve them in student presentations and field trips.

Creek And Bay Field Trip Exploration Program

EAC partners with kindergarten - fifth grade classes to lead one day field trips at creek and bay habitats. Students and teachers study the physical and biological properties of the particular habitat and learn about conservation issues affecting the ecosystem. EAC provides a field trip preparation and follow up activity package.

Bay Estuary Scientist Program

EAC partners with kindergarten -fifth grade classes to study the features of the bay estuary in three-hour classroom workshops. Students and teachers are engaged in hands-on science activities and learn about bay conservation issues. Each class also watches the educational movie Kids By The Bay which features EAC students in our programs, cleaning up and restoring habitats of the San Francisco Bay. In 1998, CALFED Bay-Delta funded IDG Film's showing of this movie in an environmental film festival. EAC provides a workshop preparation and follow up activity package.

Community Creek Clean-Up Program

EAC partners with teachers, students, their families and the City Of San Pablo Clean Water Program, to organize a community clean-up for Wildcat Creek which flows through Davis Park in San Pablo.

Estuary Action Challenge Newsletter

The EAC Newsletter contains articles to describe work accomplished in our programs and some articles written by student participants. It is circulated to approximately 1,000 teachers, environmentalists and collaborators. EAC also publishes project articles in Earth Island Journal, distributed to approximately 15,000 members.

With a \$50,000 CALFED Bay-Delta contract, EAC will expand to add:

- 6 classes to the Urban Creek Restoration Program
- 6 classes to the Pollution Reduction/Safe Bay Food Consumption Program
- 9 classes to the Bay Estuary Scientists Workshops Program
- 9 classes to the Creek and Bay Field Trip Exploration Program.

With a \$40,000 contract, EAC will add:

- 5 classes to the Urban Creek Restoration Program
- 5 classes to the Pollution Reduction/Safe Bay Food Consumption Program
- 6 classes to the Bay Estuary Scientists Workshops Program
- 6 classes to the Creek and Bay Field Trip Exploration Program.

With a \$30,000 contract, EAC will add:

- 4 classes to the Urban Creek Restoration Program
- 4 classes to the Pollution Reduction/Safe Bay Food Consumption Program.
- 4 classes to the Bay Estuary Scientists Workshops Program
- 4 classes to the Creek and Bay Field Trip Exploration Program.

Equipment used includes:

educational materials;	maps, posters, microscopes, dip nets, fish and crabs, steam cookers, videos, books, art supplies.
restoration materials;	plant pots, trowels, watering cans, shovels, seeds, garbage bags, gloves, aquariums.
general office supplies	

Facilities

EAC programs will take place on site at partner schools, in creek and bay habitats and at the EAC offices.

Project Management

Programs are advertised to targeted schools using flyers, letters and brochures, telephone conversations with interested teachers and informational meetings. Teachers complete a written application form which is used to assess level of commitment. They must apply in teams to be considered for a program. Those selected to participate attend an orientation meeting with EAC staff prior to beginning a program. They also attend evaluation meetings and complete written evaluation forms.

Restoration, clean-up and outreach projects are coordinated with collaborators prior to beginning work on each program. EAC staff meet with collaborators to plan each project and then communicate regularly to determine schedules and other logistics.

Location

EAC programs target low income, urban communities in the East San Francisco Bay Area. Partner schools are located in Richmond and San Pablo in Contra Costa County and Oakland and Berkeley in Alameda County. Adopted creek habitats are Wildcat Creek in Richmond and San Pablo, Strawberry Creek and Harwood Creek in Berkeley and Sausal Creek in Oakland. Adopted bay habitats are Arrowhead Marsh in Oakland and Shorebird Park in Berkeley, near Berkeley Marina.



Growing and planting creek-side trees.





I-020501

I-020501



Estuary Action Challenge students demonstrate
safe Bay fish cooking practices to families.





EAC students interview people fishing on Berkeley pier about safe bay food consumption practices.



ESTUARY ACTION CHALLENGE TOTAL PROJECT SCHEDULE

Task	Time Line	Deliverables
Program Implementation		
1. Community Creek Clean-up Project (Fifteen classes)	October 99- November 99	40 - 50 bags of garbage removed from creek habitat
2. Purchase Education & Restoration Equipment	October 99 - December 99	education/restoration equipment
3. Winter/Spring Newsletter Circulation	December 99	EAC Newsletter
4. Eighteen Bay Estuary Scientist Workshops	November 99 - March 2000	Workshop activity packages
5. Twelve Urban Creek Restoration Programs	October 99 - May 2000	trees/wildflowers planted, garbage removed from habitats, tree frogs released, outreach materials
6. Twelve Pollution Reduction/Safe Bay Food Programs	October 99 - May , 2000	informational flyers circulated letters mailed, family presentations
7. Summer/Fall Newsletter Circulation	May, 2000	EAC Newsletter
8. Eighteen Bay & Creek Field Trip Explorations	April - June, 2000	Field trip activity packages
Project Management		
1. Recruit Teacher Participants	October 99 - February 2000	Application forms and EAC-Teacher contracts
2. Prepare Curriculum Guides	October, 99	EAC Curriculum Guides
3. Plan Projects With Collaborators	November, 99	Workplan
4. Planning Meetings With Teachers	November , 99	Schedules
5. Teacher Evaluation Meetings	May - June, 2000	Evaluation forms Samples of students' work
6. Program Evaluations	July, 2000	Evaluation forms
7. Final Reports	September, 2000	Reports submitted

ECOLOGICAL/BIOLOGICAL BENEFITS

Ecological/Biological Objectives

Question To Be Evaluated: Can environmental education lead directly to active participation in conservation programs?

Objective: Increase the number of teachers using local bay and creek habitats as key educational resources to empower students to help solve bay-delta estuary environmental problems.

Need: Over 80% of teachers in our programs tell us that teacher training workshops in environmental science education have been difficult to implement in the classroom.

"I have been in several workshops where educators train the teachers to then go teach our students without direct support. Somehow it never translates into the classroom experience. Working with Estuary Action Challenge has allowed me to teach with terrific teachers while learning along with my students. Therefore the experience is easy to repeat, extend and enrich."

Sharon Strachan, Fifth Grade Teacher, Thousand Oaks School, Berkeley

Approach: EAC works directly with teachers and students in the classroom and in the field, to implement programs.

Benefit: This approach provides the unique opportunity for teachers to learn alongside their students and ensures that teachers are fully trained to continue teaching programs.

Durability Of Project

Teachers trained in EAC continue teaching programs year after year with each new class of students. They use knowledge of teaching strategies learned in their hands-on training, EAC curriculum guides and equipment provided, and connections with resource people made through EAC.

Objective: Adopt, clean-up and restore urban creek habitats.

Need: Urban creeks are often degraded, used as trash dumping sites, overgrown with invasive plants and lacking native plants and animals.

Approach: EAC students work with local agencies and restoration efforts to grow native trees and wildflowers and plant them beside creeks, organize community creek clean-up projects and raise and release tree frogs into their native creek habitats.

Benefit: The local community becomes committed to protecting and restoring their local creek.

Objective: Increase public awareness of methods to reduce urban runoff pollution to the estuary.

Need: Non-point source pollution runoff from streets, farms and gardens and direct dumping into storm drains is a major source of pollution entering the estuary.

Approach: EAC students conduct school neighborhood surveys and record evidence of pollutants that can drain into creeks and the bay. Students learn about the effects of these urban runoff pollutants on the estuary ecosystem and its food chains. They plan creek and neighborhood clean-ups and educational projects to teach others about personal actions that reduce urban runoff pollution. These include: not dumping in storm drains, fixing leaks from cars immediately, reducing use of cars and using alternative transportation, properly disposing of garbage and recycling. Students plan projects by brainstorming possibilities, selecting practical projects and working in planning groups.

Student projects include:

- making informational books and reading them to younger classes of children,
- school-wide assemblies including plays, slide shows and presentations,
- displaying educational posters,
- making T-Shirts with anti-pollution logos.

EAC also teaches about the sources and affects of pesticide runoff to the estuary. Students learn alternatives to using pesticides in their gardens and the benefits of buying organic and pesticide free produce from local farmer's markets.

Benefit: Citizens are educated to stop dumping into storm drains and to reduce pollutants leaching into ground water, to reduce this major source of pollution to the estuary.

Objective:

Increase the number of people aware of bay pollution issues and using safe bay food consumption practices to reduce intake of toxins and improve community health.

Need: Many families fishing from the San Francisco Bay depend on the food caught as a major part of their diet, but fish and shell fish in the S.F. Bay are contaminated with pollutants including: methylmercury, polychlorinated biphenyls, dioxins and pesticides. Consumption of these pollutants increases the risk of neurotoxicity and cancer, *especially in children*. Over 70% of people fishing from the San Francisco Bay and eating the food are people of color. For many, English is not their first spoken language and bay food health warning information, already limited in scope, is not easily accessible. Another source of contaminated fish is local fish markets which often sell fish caught in the bay. Student participants in the EAC Pollution Reduction/Safe Bay Food Consumption program are over 90% children of color, whose families fish from the bay and shop at local fish markets.

Approach: EAC teaches about the impact of industrial pollution on the bay ecosystem. Students interview local politicians about reducing bay pollution and write letters to factory/refinery owners and politicians expressing their concerns about bay pollution and environmental health. EAC teaches about the health risks associated with bay food and the safety precautions that reduce those risks. A safe bay fish cooking demonstration, games about biomagnification of pollutants in the food chain and informational flyers in seven different languages are some of the teaching tools used. Students invite their families to their classrooms and present safe bay fish cooking demonstrations, translating into the languages of the community. Students make informational flyers to distribute and interview people fishing on local bay piers about safe fishing and cooking practices using their bilingual skills to provide information.

Benefit: Increased public awareness of pollution issues and safe bay food consumption practices.

Linkages

Relationship To Past And Future CALFED Projects

Thirty classes (900 students and 30 teachers) participating in the EAC project will watch the movie Kids By The Bay which features EAC students in our programs, cleaning up and restoring habitats of the San Francisco Bay. Kids By The Bay was produced by Independent Documentary Group Films and released in 1997 as an educational tool. IDG Films received CALFED funding in 1998 to show an Environmental Film Festival in the nine counties of the San Francisco Bay Area. Kids By The Bay was part of this film festival and Mandi Billinge, Director of Estuary Action Challenge was a speaker at several of these events.

ERP Strategic Objectives And Targets Addressed

Page 151, ERP Volume 1: The EAC project addresses CALFED objectives to restore,

protect and manage riparian habitat types. EAC students and teachers will work with collaborating agencies on creek restoration programs.

Page 506, ERP Volume 1: The EAC project addresses CALFED objectives to reduce concentrations and loadings of contaminants to levels that do not cause adverse effects on all organisms and ecosystems in the aquatic environment. This objective encompasses effects on human health. EAC students and teachers will work to reduce urban runoff pollution and raise public awareness about issues of industrial pollution and pesticide pollution to the bay. EAC will also provide crucial outreach and information on safety procedures to follow when eating fish from the bay to those most affected by intake of contaminants from fish. While CALFED is working to reduce loading of contaminants, bay food chains remain polluted. It is crucial that action is taken to inform citizens about health risks resulting from consuming bay fish in the interim period.

Implementation Of CALFED Overall Objectives

The EAC project will help CALFED with its overall objectives in the areas of habitat restoration, water quality and environmental education. The Strategic Plan identifies the following priorities:

- Protect or restore functional habitat types throughout the watershed for public values such as recreation, scientific research and aesthetics.
- Improve and maintain water quality to eliminate toxic impacts on organisms in the system, including humans.

CALFED describes interest in supporting environmental education programs that develop a broader understanding of natural resource conservation issues at the individual and community level and facilitate creative solutions to environmental problems. The EAC project will increase public awareness, knowledge, understanding and appreciation of natural resources and increase active participation in ecosystem restoration activities. EAC programs use existing educational resources and are coordinated with local agencies. EAC has conducted programs for the past seven years. Curricula have been developed with high input from teacher and student participants and collaborators. Programs are highly successful and there are more teachers hoping to work with us than we can currently serve. With a CALFED Bay-Delta we will expand programs by 40%.

System Wide Ecosystem Benefits

In October 1999, Estuary Action Challenge will work with Sandy Neumann, Education Director for the Center For Ecoliteracy, to host a series of watershed environmental education collaborative meetings. These meetings will bring together environmental education leaders from organizations in the nine counties of the San Francisco Bay Area working on watershed issues. This project will provide the opportunity for sharing successful strategies, group problem solving and collaboration on key watershed issues.

Compatibility With Non-Ecosystem Objectives

The project does not conflict with other CALFED objectives.

Third Party Benefits

Student's parents and other family members will have a beneficial educational experience from involvement with the EAC project. They will learn about habitat restoration, reducing pollution and safe bay fishing and cooking practices that can improve their health, from their children. People fishing on bay piers and interviewed by students will also learn safe bay food consumption practices to improve their health.

TECHNICAL FEASIBILITY AND TIMING

Evaluation Of Teacher Training Approaches

Over the past seven years, Estuary Action Challenge has worked with many teachers who have already participated in Teacher Training Workshops for environmental education, but have done nothing as a result of this training. These teachers told us that information and activities taught in workshops did not translate into their classroom experience. It was only after participating in EAC programs, in which staff actually partner with teachers and students and work with them in their local environment, modeling activities that work with a class of 30 plus students, that teachers were empowered to go on to teach the programs themselves.

"I have been participating in environmental trainings for about four years. This is the first time that I will be able to actually teach concepts using meaningful lessons. I now have appropriate activities for my student's levels. I feel confident in creek environments because of the Estuary Action Challenge Program."
Diane Brown, Teacher, Riverside School, San Pablo.

Over 80% of EAC teachers tell us they have not had sufficient science training to feel confident teaching environmental science activities without the level of support provided by EAC. In addition, in the urban schools we work in, there is a very limited budget for equipment and resources needed to teach environmental education effectively. The EAC model of partnering with a class for the whole school year, modeling activities, providing equipment and resources and the curriculum guide provides the level of support that elementary school teachers need.

"The Estuary Action Challenge model has huge value in breaking down barriers and getting teachers to try hands-on science. It provides the stepping stone needed to get teachers using the resources available."
Craig Strang, Associate Director, Lawrence Hall Of Science.

Our teachers have explained that curriculum guides provided at workshops, in many cases were not written by teachers. Instead they were written by environmentalists or naturalists and have not been adequately field tested. These guides are difficult for teachers to use and many of them remain on the shelf, unopened. Our teachers in EAC have told us how effective EAC curriculum guides are, because they were written by an experienced, credentialed teacher with a strong science background, field tested hundreds of times and improved with feed back from many teachers and students.

Permits Required

The EAC project will collaborate with local agencies for all restoration activities. These agencies have ongoing restoration projects and have taken care of all permits required. Therefore EAC does not require any permits.

Outstanding Implementation Issues

There are no outstanding implementation issues for this project.

MONITORING AND DATA COLLECTION METHODOLOGY

Question to be evaluated: Can environmental education lead directly to active participation in conservation programs?

Approach: Evaluate the number of teachers, students and family members actively participating in EAC conservation programs meeting the objectives described.

Objective: Increase the number of teachers using local bay and creek habitats as educational resources to empower students to help solve estuary environmental problems.

Data Collection Approach: Evaluate programs for each teacher and class of students participating using written evaluation forms and meetings to assess program quality and durability. Survey teachers to evaluate the number of teachers participating in EAC programs continuing to teach programs as a result of the training they have received.

Evaluation Approach: Determine the percentage of teachers trained who continue teaching programs.

Objective: Adopt, clean-up and restore urban creek habitats.

Data Collection Approach: Compare adopted creek habitats before and after projects.

Evaluation Approach:

- amount of trash cleaned from an adopted creek
- number of trees and wildflowers planted
- number of native animals raised and released.

Objective: Increase public awareness of methods to reduce urban runoff pollution to the estuary.

Data Collection Approach: Students work portfolios. Responses to outreach efforts.

Evaluation Approach:

- quality and quantity of educational projects about reducing urban runoff pollution,
- amount of garbage removed in neighborhood clean up projects.

Objective: Increase the number of people aware of bay pollution issues and using safe bay food consumption practices to reduce intake of toxins and improve community health.

Data Collection Approach: Student work portfolios. Responses to outreach efforts.

Evaluation Approach:

- quality and quantity of letters and interviews about reducing pollution to factory and refinery owners and politicians.
- quality and quantity of flyers about safe cooking and fishing practices circulated to the school community (including families) and people fishing on local piers and responses,
- # family members attending safe cooking demonstrations and responses.

Evaluations will take place throughout the school year and programs will be continually improved using feedback. Final evaluations will take place at the completion of each program to make improvements for future implementation. Program reports will describe how objectives were met and the knowledge gained through the evaluation process. Highlights of programs will be communicated to all participants and constituents of EAC in our newsletter.

ESTUARY ACTION CHALLENGE

Monitoring And Data Collection Information

Question to be evaluated: Can environmental education lead directly to active participation in conservation programs?

Approach: Evaluate the number of teachers, students and family members actively participating in EAC conservation programs to met objectives described.

Objective	Data Collection Approach	Evaluation Approach
Increase the number of teachers using local bay and creek habitats as key educational resources to empower students to help solve estuary environmental problems.	Interview teachers, collect written evaluation forms.	Calculate % teachers trained in EAC who continue teaching programs each year.
Adopt, clean-up and restore creek habitats.	Compare creek habitats before and after projects.	<ul style="list-style-type: none">• amount of trash collected urban• # trees & wildflowers planted• # animals released.
Increase public awareness of methods to reduce urban runoff pollution to the estuary.	Student work portfolios. Responses to outreach efforts.	Quality & quantity of outreach materials, audience #'s and responses.
Increase awareness of bay pollution issues & # people using safe bay food consumption practices.	Student work portfolios. Responses to outreach efforts.	Quality & quantity of outreach materials, audience #'s and responses.

LOCAL INVOLVEMENT

Notification To Alameda And Contra Costa Counties

Wilma Chan, President of the Alameda County Board of Supervisors and Joe Canciamilla, Chairman of the Contra Costa County Board of Supervisors have been notified of this project. Please see the notification letters, attached. EAC has also notified Donald Freitas, Manager of the Contra Costa County Clean Water Program and Lesley Estes, Board President of the Alameda County Clean Water Program of the project. Lesley is also an active member of Friends Of Sausal Creek and EAC plans to collaborate with this organization to start a new Urban Creek Restoration program focusing on this creek, with CALFED Bay-Delta funding. Please see letters, attached.

Local Groups Supporting Project

EAC was created in 1992 and in the past seven years 250 teachers and 7,500 students have participated in our programs. Over 75% of our students are children of color from low-income, urban schools in West Contra Costa County, Berkeley Unified and Oakland Unified School Districts. EAC has an excellent reputation for delivering high quality, effective programs. There is a great deal of support in local schools for EAC programs and a waiting list of teachers hoping to work with us. EAC currently partners with 45 teachers and 1,400 students to implement our programs each school year. With CALFED Bay-Delta funding, we will expand to work with 75 teachers and 2,000 students.

EAC collaborates with several local agencies to implement restoration activities. These include the East Bay Municipal Utility District, East Bay Regional Park District and city Clean Water Programs. Each year our student participants plant over one hundred native trees and hundreds of wildflowers on the public and private property managed by these agencies in collaborative restoration projects. City Clean Water Programs work with EAC to advertise community creek clean-up projects and promote public involvement. The Lawrence Hall Of Science Family Health Program works with EAC to target schools for environmental health projects and increase school-wide family involvement.

Plan For Public Outreach

EAC will publicize programs to teachers at targeted schools by posting flyers and distributing brochures and letters. Interested teachers will contact EAC staff for an informational meeting. Teachers will complete an application form, demonstrating their commitment to integrating the EAC program into the ongoing school curriculum. EAC will select teams of teacher participants from targeted schools based on the informational interviews and the application forms.

Collaborators have already been informed of the submission of this CALFED Bay-Delta proposal. Please see letters, attached. Please feel free to contact our collaborators. At the beginning of the project in October, EAC staff will contact collaborating agencies to plan collaborative efforts.

Third Party Impacts

Student's parents and other family members will benefit from involvement with the EAC project. Students will recruit their family members to participate in restoration, pollution reduction and safe bay food consumption projects and field trips.

COST

Budget

Please see budgets, attached.

Salary/Benefits

EAC provides services at a fee of \$50.00 per hour. This includes staff time and benefits for the EAC Director and the Program Coordinators.

Project management includes recruiting and selecting teacher participants, planning and evaluation meetings with teachers, planning projects with collaborators, program evaluations and reports.

Equipment Includes

educational materials;	maps, posters, microscopes, dip nets, fish and crabs, steam cookers, videos, books, art supplies.
restoration materials;	plant pots, trowels, watering cans, shovels, seeds, garbage bags, gloves, aquariums.

Overhead Costs

Overhead costs include general office supplies, copying and printing, rent, phones, computers, faxes, internet access. This is calculated at 25% of direct salary and benefits.

Schedule

Please see project schedule, attached.

COST SHARING

Estuary Action Challenge will provide \$5,000 in-kind of equipment and resources for this project, including educational and restoration materials.

Collaborators work with EAC as an in-kind contribution to the project. Four collaborators will donate 20 - 40 hours of work at \$50.00 per hour. This is a total of at least \$4,000.

Other Funding Commitments

For our current programs, before expansion using CALFED funds, EAC raises funds each year from private foundations and corporations.

For 1999 - 2000, funds include:

Grants Committed

Richard and Rhoda Goldman Fund, \$20,000
San Francisco Foundation, \$15,000
Walter and Elise Haas Fund, \$10,000

Grants Pending

Center For Ecoliteracy, \$20,000
Rathman Family Foundation, \$10,000
Loveland Family Foundation, \$5,000

ESTUARY ACTION CHALLENGE PROJECT BUDGET

Task	Labor Hours	Salary /Benefits	Equip.	Overhead	Total
Program Implementation					
1. Purchase Education & Restoration Equipment	30	1500	2500	375	4375
2. Winter/Spring Newsletter Circulation	30	1500		375	1875
3. Nine Bay Estuary Scientist Workshops	90	4500		1125	5625
4. Six Urban Creek Restoration Programs	140	7000		1750	8750
5. Six Pollution Reduction/Safe Bay Food Programs	140	7000		1750	8750
6. Summer/Fall Newsletter Circulation	30	1500		375	1875
7. Nine Bay & Creek Field Trip Explorations	85	4250		1062.5	5312.5
Project Management					
1. Recruit Teacher Participants	80	4000		1000	5000
2. Prepare Curriculum Guides	20	1000		250	1250
3. Plan Projects With Collaborators	25	1250		312.5	1562.5
4. Planning Meetings With Teachers	25	1250		312.5	1562.5
5. Teacher Evaluation Meetings	25	1250		312.5	1562.5
6. Program Evaluations	25	1250		312.5	1562.5
7. Final Reports	15	750		187.5	937.5
TOTAL		38000	2500	9500	50000

ESTUARY ACTION CHALLENGE PROJECT QUARTERLY BUDGET

Task	Oct. - Dec.	Jan. - March	May - June	July - Sept.	Total
Program Implementation					
1. Purchase Education & Restoration Equipment	4375				
2. Winter/Spring Newsletter Circulation	1875				
3. Nine Bay Estuary Scientist Workshops		5625			
4. Six Urban Creek Restoration Programs			8750		
5. Six Pollution Reduction/Safe Bay Food Programs			8750		
6. Summer/Fall Newsletter Circulation			1875		
7. Nine Bay & Creek Field Trip Explorations			5312.5		
Project Management					
1. Recruit Teacher Participants	3125	1875			
2. Prepare Curriculum Guides	1250				
3. Plan Projects With Collaborators	1562.5				
4. Planning Meetings With Teachers	1562.5				
5. Teacher Evaluation Meetings			1562.5		
6. Program Evaluations				1562.5	
7. Final Reports				937.5	
TOTAL	13750	7500	26250	2500	50000

ESTUARY ACTION CHALLENGE EXPANSION PROJECT SCHEDULE

With CALFED Bay-Delta Funding

Task	Start Date	To Be Completed By
Program Implementation		
1. Purchase Education & Restoration Equipment	October 1, 99	December 15, 99
2. Winter/Spring Newsletter Circulation	October 15, 99	December 15, 99
3. Nine Bay Estuary Scientist Workshops	November 1, 99	March 31, 2000
4. Six Urban Creek Restoration Programs	October 15, 99	May 31, 2000
5. Six Pollution Reduction/Safe Bay Food Programs	October 15, 99	May 31, 2000
6. Summer/Fall Newsletter Circulation	May 1, 2000	May 31, 2000
7. Nine Bay & Creek Field Trip Explorations	April 15, 2000	June 10, 2000
Project Management		
1. Recruit Teacher Participants	October 1, 99	February 15, 2000
2. Prepare Curriculum Guides	October 1, 99	October 30, 99
3. Plan Projects With Collaborators	October 15, 99	November 30, 99
4. Planning Meetings With Teachers	October 15, 99	November 30, 99
5. Teacher Evaluation Meetings	May 1, 2000	June 10, 2000
6. Program Evaluations	June 10, 2000	July 31, 2000
7. Final Reports	August 1, 2000	September 30, 2000

APPLICANT QUALIFICATIONS

Planned Organization Of Staff

The EAC Director and two Program Coordinators will implement the EAC project. The Director will work with teachers, students and family members to implement programs, supervise Program Coordinators, coordinate with collaborators, oversee the evaluation process and publish the EAC Newsletter. The Program Coordinators will work with teachers, students, family members and collaborators to implement programs. They will also be responsible for managing equipment and resources.

Brief Biosketches

EAC Director Mandi Billinge founded Estuary Action Challenge and has directed program development and organization expansion for the past seven years. Mandi has a B.S. Honors Degree in Biology from England, specializing in freshwater and estuarine ecology, a Teaching Credential from Leeds University, England and the Development Director's Certificate from the University Of San Francisco.

EAC Program Coordinator Samy Hermes holds B.S. Honors Degrees in Biology and Biochemistry and a Teaching Credential. Samy has taught EAC programs for the past year, with excellent feedback from teachers, students and collaborators.

Jocelyn Manual is a credentialed teacher and has taught science and environmental education for the past three years. EAC plans to hire Jocelyn as a Program Coordinator in September, 99.

Part of the EAC mission is equal access, but there are currently very few people of color working in environmental education. EAC staff are from diverse ethnic and cultural backgrounds. We recruit through partnerships with Diversity Network and the Multicultural Alliance.

Previous Accomplishments

Estuary Action Challenge is the environmental education project of Earth Island Institute, focusing on the San Francisco Bay Estuary. Earth Island is a nonprofit organization supporting a network of environmental projects. EAC was created in 1992 and in the past seven years 250 teachers and 7,500 students have participated in our programs. EAC currently partners with 45 teachers and 1,400 students each school year. With CALFED Bay-Delta funding, we will expand to work with 75 teachers and 2,000 students. EAC curricula, restoration, pollution reduction and community outreach programs have been developed with high input from teacher and student participants and collaborators.

Each year, for the past seven years, EAC students have:

- planted trees and wildflowers along urban creeks,
- organized community creek and bay habitat clean-ups,
- raised tree frogs in classrooms to release back into creek homes,
- designed and distributed creative outreach materials to inform school communities about reducing urban runoff pollution,
- expressed concerns about estuary pollution issues using letter writing campaigns, interviews with politicians and play performances,
- interviewed people fishing on bay piers about safe bay food consumption and distribute informational flyers in seven different languages,

- demonstrated safe bay fish cooking to families at school-community events and teach safety precautions that reduce health risks.

In 1996, EAC received the Future Of The Bay Award from Save San Francisco Bay Association for innovative environmental education and restoration projects, presented by Mayor Willie Brown. Student participants in EAC are featured in the Kids By The Bay movie by Independent Documentary Group Films, released in 1997 as an educational tool.

Please see EAC newsletters and Earth Island Journal article describing previous projects, attached.

Comments From Previous EAC Teacher Participants

"Our Estuary Action Challenge program was outstanding. My students learned so much about their local environment and were given many opportunities to act as leaders in their communities. I plan to use the entire curriculum next year with my new students."

Sonja Ebel, Fourth Grade Teacher, Hawthorne School, Oakland.

"Our Estuary Action Challenge experience was wonderful and I know the students will remember it for a lifetime because we did a brainstorm at the end of the year and they remembered every concept and activity from the program. Having EAC in our class created a year long theme. The curriculum was very effective: all concepts were supported by concrete activities and students were actively engaged in making a difference."

Karen Cevallos, 4th Grade Teacher, Dover School (Winner of the 1997 Mason MacDuffie Teacher's Award.)

"Our Estuary Action Challenge Program is the very best science that we do all year. Mandi has imparted a wealth of knowledge to me and to the students. I love this program and I will continue it each year utilizing the curriculum written for me."

Steve Ahonen, Fourth Grade Teacher, Highlands School.

"The Estuary Action Challenge Program is the most exciting and fruitful program I've ever experienced in fourteen years of teaching. I am excited to continue the program with future students."

Pam Auxter, Third Grade Teacher, Dover School.

"The Estuary Action Challenge Harwood Creek Program is a reason for families to choose to attend John Muir School."

Robetta Mack, Principal, John Muir School.

"The Estuary Action Challenge model has huge value in breaking down barriers and getting teachers to try hands-on science. It provides the stepping stone needed to get teachers using the resources available."

Craig Strang, Associate Director, Lawrence Hall Of Science.

ESTUARY ACTION CHALLENGE

A Project of
Earth Island Institute

6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

March 25, 1999

Joe Canciamilla
Chairman
Contra Costa County Board Of Supervisors
315 E Leland Avenue
Pittsburg, CA 94565

Dear Mr. Canciamilla,

I am writing to inform you that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program to enable us to expand our programs.

Estuary Action Challenge (EAC) is an environmental education organization which provides professional development for teachers and academic enrichment for students. Teachers learn to use the local environment as a rich educational resource and to empower students to become environmental stewards.

EAC was created in 1992 and in the past seven years 250 teachers and 7,500 students have participated in our programs. We work in elementary schools in Richmond and San Pablo in Contra Costa County and in Oakland and Berkeley in Alameda County. Over 75% of our students are children of color from low-income, urban schools.

Our programs address the following community environmental health problems:

- Many of our East Bay Area urban creeks are trashed, smothered with weeds and lack indigenous plant and animal species.
- Toxins from factories, refineries, pesticide runoff and dumping in storm drains is polluting the air we breathe and the food we eat.
- Many people fish from the San Francisco Bay. The food caught is contaminated with pollutants that cause cancer and brain damage.

Each year Estuary Action Challenge students:

- plant hundreds of trees and wildflowers along urban creeks,
- organize community creek and bay habitat clean-ups,
- raise tree frogs in their classrooms to release back into creek homes,
- design and distribute creative outreach materials to inform their communities about reducing urban runoff pollution,
- express their concerns about pollution issues using letter writing campaigns, interviews with politicians and play performances,

Estuary Action Challenge educates and empowers San Francisco Bay Area schools to improve community environmental health. We are committed to education through action and to equal access to environmental science education for girls and boys from all cultural backgrounds.

- interview people fishing on bay piers about safe bay food consumption and distribute informational flyers in seven different languages,
- demonstrate safe bay fish cooking to their families at school-community events and teach the safety precautions that reduce health risks.

The EAC professional development package trains teachers to continue teaching programs with each new class of students.

"Our Estuary Action Challenge program was outstanding. My students learned so much about their local environment and were given many opportunities to act as leaders in their communities. I plan to use the entire curriculum next year with my new students."

Sonja Ebel, Fourth Grade Teacher, Hawthorne School, Oakland.

I have enclosed a copy of our latest newsletter and I will be happy to answer any questions about our work.

Sincerely,

Mandi J. Billinge

Mandi Billinge
Director

ESTUARY ACTION CHALLENGE

A Project of

Earth Island Institute

6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235 3785 • Email: crubili@aol.com

Mandi Billinge, Director

March 25, 1999

Wilma Chan
President
Alameda County Board Of Supervisors
1221 Oak Street
Oakland, CA 94612

Dear Ms. Chan,

I am writing to inform you that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program to enable us to expand our programs.

Estuary Action Challenge (EAC) is an environmental education organization which provides professional development for teachers and academic enrichment for students. Teachers learn to use the local environment as a rich educational resource and to empower students to become environmental stewards.

EAC was created in 1992 and in the past seven years 250 teachers and 7,500 students have participated in our programs. We work in elementary schools in Richmond and San Pablo in Contra Costa County and in Oakland and Berkeley in Alameda County. Over 75% of our students are children of color from low-income, urban schools.

Our programs address the following community environmental health problems:

- Many of our East Bay Area urban creeks are trashed, smothered with weeds and lack indigenous plant and animal species.
- Toxins from factories, refineries, pesticide runoff and dumping in storm drains is polluting the air we breathe and the food we eat.
- Many people fish from the San Francisco Bay. The food caught is contaminated with pollutants that cause cancer and brain damage.

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"Our Estuary Action Challenge program was outstanding. My students learned so much about their local environment and were given many opportunities to act as leaders in their communities. I plan to use the entire curriculum next year with my new students."

Sonja Ebel, Fourth Grade Teacher, Hawthorne School, Oakland.

I have enclosed a copy of our latest newsletter and I will be happy to answer any questions about our work.

Sincerely,

Mandi J. Billinge

Mandi Billinge
Director

ESTUARY ACTION CHALLENGE

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6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

March 25, 1999

Lesley Estes
Board President
Alameda County Clean Water Program
250 Frank H. O'Gawa Plaza
Suite 5301
Oakland, CA 94612

Dear Lesley,

I hope you are doing well. Thanks again for your help with creating a board for Estuary Action Challenge. I have enclosed the list of EAC board members and advisors. We have a great group of people and we will have our first meeting in April.

I am writing to let you know that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program to enable us to expand our programs, beginning October 1999. This funding would also help us to begin a new Urban Creek Restoration Program, focusing on Sausal Creek in Oakland. I know that you are an active member of Friends Of Sausal Creek and I would like to collaborate with you and the group to involve students, teachers and their families in some of your creek restoration activities. I look forward to speaking with you more about some collaboration ideas.

Best wishes,

Mandi J. Billinge

Mandi Billinge
Director

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ESTUARY ACTION CHALLENGE ADVISORY BOARD

Leilani Alo
Director Of Multicultural Fellowships
San Francisco Foundation
225 Bush Street, Suite 500
San Francisco, CA 94105
(415) 733-8500

Edmundo Vasquez
Law Offices Of Edmundo Vasquez
64 Gough Street
San Francisco, CA 94102
(415) 552-7307

Orpheus Crutchfield
President
Nonprofit Ventures
2342 Shattuck Avenue, P.O. Box 335
Berkeley, CA 94704
(510) 235-3785

Susan Egnoto
Business Planning/Marketing Consultant
424 Bucknell Drive
San Mateo, CA 94402
(650) 579-5554

Steve Manning
Naturalist
The Nature Company
750 Hearst Avenue
Berkeley, CA 94710
(510) 649-5455

Carlos Plazola
Environmental Aide
Congresswoman Barbara Lee's Office
1301 Clay Street, Suite 1,000 N
Oakland, CA 94612
(510) 763-0370

ESTUARY ACTION CHALLENGE ADVISORS

Susan Andrews
Education Executive/Environmentalist
(415) 861-0627

Dr. Kevin Franklin
Chair, Nonprofit Ventures, Inc.
(949) 476-8785

Kathy Barrett
Director, Family Health Program
Lawrence Hall Of Science
(510) 642-9633

Sylvia McLaughlin
Founder
Save San Francisco Bay Association
(510) 848-0699

Jack Chin
Executive Director
Funder's Forum For Environmental Education
(415) 561-6320

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Earth Island Institute

6534 Arlington Boulevard, Richmond, CA 94805 • Tel./Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

March 25, 1999

Donald Freitas
Manager
Contra Costa County Clean Water Program
255 Glacier Drive
Martinez, CA 94553

Dear Mr. Freitas,

I am writing to inform you that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program to enable us to expand our programs to work with 75 teachers and 2,000 students. This year we expanded to work with 45 teachers and 1,500 students in both Contra Costa and Alameda Counties.

Environmental action projects completed this year by EAC students include:

- planting hundreds of trees and wildflowers along urban creeks,
- organizing community creek and bay habitat clean-ups,
- raising tree frogs in classrooms to release back into creek homes,
- designing and distributing creative outreach materials to inform their communities about reducing urban runoff pollution,
- expressing concerns about pollution issues using letter writing campaigns, interviews with politicians and play performances,
- interviewing people fishing on bay piers about safe bay food consumption and distributing informational flyers in seven different languages,
- demonstrating safe bay fish cooking to families at school-community events and teaching the safety precautions that reduce health risks.

We continue to receive excellent feedback from our participants.

"Our Estuary Action Challenge program was outstanding. My students learned so much about their local environment and were given many opportunities to act as leaders in their communities. I plan to use the entire curriculum next year with my new students."

Sonja Ebel, Fourth Grade Teacher, Hawthorne School, Oakland.

I have enclosed a copy of our latest newsletter and I will be happy to answer any questions about our work.

Sincerely,

Mandi J. Billinge

Mandi Billinge
Director

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6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

March 25, 1999

Pat Solo
Ranger/Naturalist
East Bay Municipal Utility District
500 San Pablo Dam Road
Orinda, CA 94563

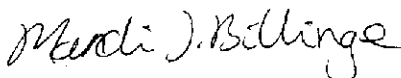
Dear Pat,

I hope you are doing well. Our students, teachers and parents really enjoyed the planting project along Pinole Creek this winter and learned a lot about creek restoration in the process!

I am writing to let you know that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program. This will enable us to expand all our programs next school year.

We look forward to working with you again on similar creek restoration projects.

Best wishes,



Mandi Billinge
Director

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6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

March 16, 1999

Davios Santos
Park Supervisor
East Bay Regional Park District
5755 McBryde Avenue
Richmond, CA 94805

Dear Davios,

I hope you are doing well. Our students, teachers and parents really enjoyed the planting project along Wildcat Creek last fall and learned a lot about creek restoration in the process!

I am writing to let you know that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program. This will enable us to expand all our programs next school year.

We look forward to working with you again on similar creek restoration projects.

Best wishes,

Mandi J. Billinge

Mandi Billinge
Director

Estuary Action Challenge educates and empowers San Francisco Bay Area schools to improve community environmental health. We are committed to education through action and to equal access to environmental science education for girls and boys from all cultural backgrounds.

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6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

March 16, 1999

Scot Christie
NPDES Coordinator
City Of San Pablo
One Alvarado Square
San Pablo, CA 94806

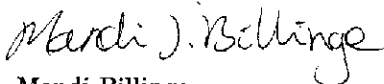
Dear Scot,

I hope you are doing well. Estuary Action Challenge staff enjoyed working with you on the Community Creek Clean-up Project last fall. Our students, teachers and parents also really enjoyed the planting project along Wildcat Creek trails last year and learned a lot about creek restoration in the process!

I am writing to let you know that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program. This will enable us to expand all our programs next school year.

We look forward to working with you again on similar creek restoration projects.

Best wishes,



Mandi Billinge
Director

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6534 Arlington Boulevard, Richmond, CA 94805 • Tel/Fax: (510) 235-3785 • Email: crubill@aol.com

Mandi Billinge, Director

March 16, 1999

Kathy Barrett
Family Health Program Director
Lawrence Hall Of Science
University Of California
Berkeley, CA 94720

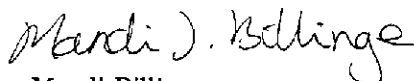
Dear Kathy,

I hope you are doing well. I am enjoying working with you to plan the collaboration between Estuary Action Challenge and the Family Health Program of Lawrence Hall Of Science. I look forward to working together and coordinating the activities of our programs in target schools this fall.

I am writing to let you know that Estuary Action Challenge has applied for funding from the CALFED Bay-Delta program. This will enable us to expand all our programs next school year.

I look forward to our next planning meeting.

Best wishes,



Mandi Billinge
Director

Estuary Action Challenge educates and empowers San Francisco Bay Area schools to improve community environmental health. We are committed to education through action and to equal access to environmental science education for girls and boys from all cultural backgrounds.

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-85) FMC

COMPANY NAME

Earth Island Institute/Estuary Action Challenge

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME

John A. Knox

DATE EXECUTED

March 26, 1999

EXECUTED IN THE COUNTY OF

San Francisco

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

Executive Director

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Earth Island Institute

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

1. TYPE OF SUBMISSION: Application <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		2. DATE SUBMITTED 	Applicant Identifier
3. DATE RECEIVED BY STATE 		State Application Identifier 	
4. DATE RECEIVED BY FEDERAL AGENCY 		Federal Identifier 	

5. APPLICANT INFORMATION

Legal Name: Earth Island Institute	Organizational Unit: Estuary Action Challenge
Address (give city, county, State, and zip code): 6534 Arlington Boulevard Richmond, CA 94805	Name and telephone number of person to be contacted on matters involving this application (give area code): Mardi Billings (510) 735-3885

6. EMPLOYER IDENTIFICATION NUMBER (EIN):

94-2889684

7. TYPE OF APPLICANT: (enter appropriate letter in box)

A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District	H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) <u>Notprofit 501(c)(3)</u>
---	---

8. TYPE OF APPLICATION:
☒ New ☐ Continuation ☐ Revision
 If Revision, enter appropriate letter(s) in box(es) ☐ ☐
 A. Increase Award B. Decrease Award C. Increase Duration
 D. Decrease Duration Other(specify): _____

9. NAME OF FEDERAL AGENCY:
 CALFED Bay-Delta

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
 TITLE: _____

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
 Estuary Action Challenge
 Environmental Education
 Project

12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.):
 Alameda and Contra Costa Counties, California

13. PROPOSED PROJECT Start Date: 10/1/99 Ending Date: 9/30/2000	14. CONGRESSIONAL DISTRICTS OF: a. Applicant: seven, eight
--	--

15. ESTIMATED FUNDING: <table style="width:100%;"> <tr> <td style="width:50%;">a. Federal</td> <td style="width:50%;">\$ 50,000.00</td> </tr> <tr> <td>b. Applicant</td> <td>\$.00</td> </tr> <tr> <td>c. State</td> <td>\$.00</td> </tr> <tr> <td>d. Local</td> <td>\$.00</td> </tr> <tr> <td>e. Other</td> <td>\$.00</td> </tr> <tr> <td>f. Program Income</td> <td>\$.00</td> </tr> <tr> <td>g. TOTAL</td> <td>\$ 50,000.00</td> </tr> </table>	a. Federal	\$ 50,000.00	b. Applicant	\$.00	c. State	\$.00	d. Local	\$.00	e. Other	\$.00	f. Program Income	\$.00	g. TOTAL	\$ 50,000.00	16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE _____ b. No. <input type="checkbox"/> PROGRAM IS NOT COVERED BY E. O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW
a. Federal	\$ 50,000.00														
b. Applicant	\$.00														
c. State	\$.00														
d. Local	\$.00														
e. Other	\$.00														
f. Program Income	\$.00														
g. TOTAL	\$ 50,000.00														

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?
☐ Yes If "Yes," attach an explanation. ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Type Name of Authorized Representative John A. Knox	b. Title Executive Director	c. Telephone Number (415) 788-3635
d. Signature of Authorized Representative 		e. Date Signed 3/26/99

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BUDGET INFORMATION - Non-Construction Programs						
SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. CALFED Bay-Delta		\$	\$	\$ 50,000	\$	\$ 50,000
2.						
3.						
4.						
5. Totals		\$	\$	\$ 50,000	\$	\$ 50,000
SECTION B - BUDGET CATEGORIES						
6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)	
	(1)	(2)	(3)	(4)		
a. Personnel	\$ 33,000	\$	\$	\$	\$ 33,000	
b. Fringe Benefits						
c. Travel						
d. Equipment	2,500				2,500	
e. Supplies						
f. Contractual						
g. Construction						
h. Other						
i. Total Direct Charges (sum of 6a-6h)	40,500				40,500	
j. Indirect Charges	9,500				9,500	
k. TOTALS (sum of 6i and 6j)	\$ 50,000	\$	\$	\$	\$ 50,000	
7. Program Income	\$	\$	\$	\$	\$	

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1-020531

1-020531

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8	\$	\$	\$	\$	
9					
10					
11					
12. TOTAL (sum of lines 8 - 11)	\$	\$	\$	\$	
SECTION D - FORECASTED CASH NEEDS					
Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
13. Federal	\$ 50,000	\$ 13,750	\$ 7,500	\$ 26,250	\$ 2,500
14. Non-Federal					
15. TOTAL (sum of lines 13 and 14)	50,000	13,750	7,500	26,250	2,500
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. CALFED Bay-Delta	\$ 50,000	\$	\$	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 50,000	\$	\$	\$	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:	22. Indirect Charges:				
	40,500	9,500			
23. Remarks:					

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Standard Form 424A (Rev. 4-92) Page 2

U.S. Department of the Interior

**Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1854 (DI-1854). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

**PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters -
Primary Covered Transactions**

CHECK IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -
Lower Tier Covered Transactions**

CHECK IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

DI-2018
March 1995
This form consolidates DI-1852, DI-1854,
DI-1855, DI-1856 and DI-1863.

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK ☒ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about--
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification numbers(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Earth Island Institute, 300 Broadway Suite 28, San Francisco, CA 94133

Fishery Action Challenge, 6554 Arlington Boulevard, Richmond, CA 94805

Check ☐ if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

**PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements**

*CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND
THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT;
SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.*

*CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL
LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR
SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.*

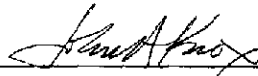
The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL



TYPED NAME AND TITLE John A. Knox Executive Director

DATE March 27, 1999

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

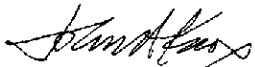
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE	
		Executive Director	
APPLICANT ORGANIZATION		DATE SUBMITTED	
Earth Island Institute/Estuary Action Challenge		March 27, 1999	

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